NAVAL STATION TREASURE ISLAND
SITE 12 ENGINEERING EVALUATION AND COST ASSESSMENT
MEETING MINUTES

DECEMBER 19, 2000

These minutes summarize discussions held at a meeting of remedial project managers (RPM) and the Base Realignment and Closure Cleanup Team (BCT) on issues relating to the planning of an engineering evaluation and cost assessment (EE/CA) for Site 12 on Naval Station Treasure Island. The meeting was held at the office of Tetra Tech EM Inc. (TtEMI) at 135 Main Street, San Francisco, California, and began at approximately 1:00 p.m. on December 19, 2000. The agenda and sign-in sheet are included as Attachment 1. The following people attended the meeting:

John Baur	International Technology Corporation (IT)
Virginia Demetrios	TtEMI
Victor Early	TtEMI
Jim McClure	Olivia Chen Consultants (consultant to the City of San Francisco)
Melissa Gunter	Integrated Waste Management Board (IWMB) (via conference call)
Kathy Himes	TtEMI
Scott Morrison	TtEMI
Marie Rainwater	TtEMI
David Rist	California Environmental Protection Agency, Department of Toxic Substances Control (DTSC)
Paul Rosenfeld	Naval Facilities Engineering Command, Southwest Division (SWDIV)
James Sullivan	SWDIV
Tony Tactay	SWDIV
Jerry Wickham	TtEMI
Marcy Yeshnowski	TtEMI

Date Draft: May 1, 2001
Date Final:

I. Introductions

Mr. Paul Rosenfeld (SWDIV) was introduced to the group as a new SWDIV RPM for Treasure Island. The group reviewed the meeting agenda and proceeded with the next item.

II and III. Data Gaps and Plan for Resolving Data Gaps for Debris Area EE/CA

Agenda items II and III were discussed concurrently. The group first discussed whether the EE/CA would apply just to the known debris disposal areas or all of Site 12. DTSC wants the EE/CA to cover all of Site 12 and intends for the remediation that occurs to be the final remedy. This led the group to ask the following questions:

- Is it possible for the BCT to come to a consensus on the outstanding technical issues and data gaps currently unresolved for Site 12?
- Do data gaps exist that could significantly affect the scope of the EE/CA? Is the group willing to take that risk and proceed with planning the EE/CA?
- Is it possible to simultaneously resolve data gaps and plan the EE/CA?

The group then proceeded to evaluate the costs and benefits for using both a risk-based or debris-based assessment to define the extent of a removal. Specifically, a risk-based assessment evaluates the chemical contaminants and their associated risk while a debris-based assessment evaluates the physical risk of actual debris. The group identified the pros and cons of both approaches as follows:

ANALYSIS OF USING A RISK-BASED ASSESSMENT	
Pros	**Cons**
Follows CERCLA process	Quantity of data required for analysis
Enables group to better define nature and extent	Cost and time of additional sampling
Minimizes extent of remediation	Uncertainty of data due to heterogeneity of material
Can limit unexpected growth of remediation	Extended timeframe may hurt public image
Cleanup criteria based directly on risk	Public may feel problems are "risked away"
Quantifiable information allows group to answer questions from community	Overall risk is relatively small due to limited exposure area of chemicals due to nature of debris
Make risk management decisions	Some debris may be left in place
Help to address nine criteria	

Note:

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

ANALYSIS OF USING A DEBRIS-BASED ASSESSMENT	
Pros	**Cons**
Less data needed	No objective criteria for what defines debris
Less cost for additional sampling	Potential higher cost for conservative remediation
Directly addresses physical hazards	Background/composition of debris unknown
Remedy selection process could start sooner	Conservative remediation would cover more area
	Remediation would impact more residents
	Harder to answer nine criteria, nature and extent
	Greater uncertainty
	Assumes no risk exists in absence of debris

The group agreed that a hybrid approach is necessary to ensure that the interim remediation will be the final remedy. The group then proceeded to address the question of whether it is possible to move forward with the EE/CA by making assumptions about the area or whether it would be necessary to collect more data to better define the scope of the EE/CA. Using existing data would allow immediate start-up of remediation alternative development; however, the uncertainty of that data may lead to a more conservative, and more expensive, remediation.

The group also discussed whether cost estimates could accurately be prepared when so much uncertainty exists. Mr. John Baur (IT) stated that he did not feel that an EE/CA would bias an alternative so much that increasing or decreasing the volume (as a result of uncertainty) would affect the outcome of the evaluation. Mr. Rist stated that DTSC generally agrees with that sentiment. The group also agreed that it would be best for the EE/CA to proceed because of public pressure, resident concern, and scheduling. Initially, the planning will focus on the debris disposal areas, with the assumption that it will be extended to the rest of Site 12 as data gaps and technical issues are addressed.

The group then focused on the definition of "debris," noting that the visual endpoint of debris is very subjective and no quantitative measure is currently used to define "debris." Mr. James Sullivan (SWDIV) noted that the CERCLA process is not intended to seek out random debris, but rather debris that had a known source. In the case of a residential area such as Site 12, it is often very difficult to differentiate between the two.

Ms. Melissa Gunter (IWMB) stated that IWMB defines "debris" as a substance that can cause physical harm (cuts or stabs) to the public. Debris also harms the public if it is swallowed. It was suggested that some research be done to determine whether construction firms or professional developers have developed such a measure. The group agreed that the Navy should develop criteria that can reasonably be applied in the field.

IV. Engineering Evaluation and Cost Assessment Ideas

The group reviewed a preliminary list of remedial options to be evaluated in the EE/CA (see Attachment 2). It was suggested that the following options be added:

- Remove all soils to 4 feet below ground surface (bgs) in known debris areas
- Remove all soils to depth necessary to meet cleanup goal (risk-based criteria or presence of visible debris)

The group agreed that assessing an alternative to remove all debris and to the maximum depth where debris is observed or until risk-based cleanup criteria are met would be useful. This alternative would demonstrate the infeasibility of attempting to remove all debris underlying the site and also lend credence to the 4-foot depth alternative.

The following action items were agreed to by the group to expedite the removal action planning:

ACTION ITEMS

ACTION ITEM	LEAD	DUE DATE	COMMENTS
Develop proposed AOC map	Navy/TtEMI *Jim Sullivan* *Victor Early*	1/08/01	Present with explanation
Develop field approach to determine the extent of the excavation	Navy/TtEMI *Jim Sullivan* *Victor Early*	1/08/01	Discuss at working meeting
Refine the Site 12 data gap/issues table and discuss each item as related to the EE/CA	Navy/TtEMI *Jim Sullivan* *Virginia Demetrios*	1/08/01	Noting whether each item will be addressed in EE/CA, and if not, it's path to closure.
Develop draft EE/CA format	Navy/TtEMI *Jim Sullivan* *Victor Early*	1/08/01	--
Develop EE/CA alternatives	Navy/TtEMI *Jim Sullivan* *Victor Early*	1/08/01	--

Notes:

AOC Area of Concern
ASAP As Soon As Possible

V. Discuss Future Agenda Items

The EE/CA will be further discussed during a meeting to be held at the San Francisco office of Tetra Tech EM Inc., January 10, 2001, at 9:30 a.m. The following items should be included in the agenda:

- Review and refine the Navy's proposed AOC to be evaluated in EE/CA
- Evaluate the Site 12 data gap/issues table specifically noting whether the issue will be addressed in the EE/CA and if not, when and how it will be addressed
- Review and refine the Navy's proposed criteria for removing debris (field methodology)
- Further discuss alternatives to be evaluated in the EE/CA
- Review and refine the EE/CA format
- Review and refine the Site 12 schedule (if necessary)
- Discuss whether the interim measures will affect the EE/CA

UPCOMING MEETINGS

Date, Time & Location	Purpose
Date: Tuesday, December 19, 2000 Time: 7:00 p.m. Place: Nimitz House on Yerba Buena Island	Monthly RAB meeting.
Date: Wednesday, December 20, 2000 Time: 9:00 a.m. Place: conference call	Resolve comments on the second phase of soil gas sampling
Date: Wednesday, December 27, 2000 Time: 1:00 p.m. Place: TBD	Discuss the interim measure plan with regard to Buildings 1235, 1237, and 1213 and the Site 12 EE/CA for the debris areas
Date: Tuesday, January 9, 2001 Time: 9:30 a.m. Place: TtEMI	Monthly BCT meeting
Date: Tuesday, January 9, 2001 Time: 9:30 a.m. Place: TtEMI	Follow-up Site 12 EE/CA meeting

ATTACHMENT 1

SIGN-IN SHEET AND MEETING AGENDA

(2 PAGES)

Date Draft: May 1, 2001
Date Final:

Meeting: Site 12 EE/CA

Date: December 19, 2000

SIGN-IN SHEET

	Name	Organization	Phone
1.	Scott Morrison	TtEMI	[redacted]
2.	Kathy Ithimes	TtEMI	
3.	Vicki Emrly	TtEMI	
4.	John Baur	IT	
5.	David Kist	DTSC	
6.	Marie Rainwater	TtEMI	
7.	Tony Tachiki	EFDSW	
8.	Paul Rosenfeld	Anteon	
9.	Gina Demetrios	TtEMI	
10.	Jim McClure	OCC (CCSF)	
11.	Marcy Lyshnow	TtEMI	
12.	James Sullivan	NAVY-SWDIV	
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

NAVAL STATION TREASURE ISLAND
EE/CA FOR DEBRIS AREAS AT SITE 12
WORKING MEETING

Date: **Tuesday, December 19, 2000**
Time: **1:00 p.m. to 3:30 p.m.**
Place: **Tetra Tech EM Inc., 135 Main Street, Suite 1800, San Francisco, California**

DRAFT AGENDA

1:00 – 1:05	Item:	**I. Introductions**
1:05 – 1:35	Item:	**II. Data Gaps: Are there gaps that prevent the development of an EE/CA for the debris areas?**
	Goal:	Agree to a format for the minutes and action item list
	Process:	Group discussion
1:35 – 2:00	Item:	**III. Plan For Resolving Data Gaps For Debris Area EE/CA**
	Goal:	Develop options for resoling data gaps. Identify pro/cons for each.
	Process:	Brainstorm
2:00 – 3:30	Item:	**IV. EE/CA Ideas**
	Goal:	1) Risk or debris based cleanup? Pro/cons of both - Identify areas of concern for the EE/CA 2) Possible remedies 3) Evaluate remedies based on the EE/CA criteria
	Process:	Brainstorm

ATTACHMENT 2

PROPOSED REMEDIATION OPTIONS TO BE EVALUATED IN SITE 12 ENGINEERING EVALUATION AND COST ASSESSMENT

(1 PAGE)

Date Draft: May 1, 2001
Date Final:

Proposed remedial options to be evaluated in the Site 12 EE/CA

1. **Pave all backyards and remove all soil in common areas to 2 feet below ground surface (bgs).**
2. **Remove all soils to 4 feet bgs.**
3. **Demolish all buildings and cap the site.**
4. Characterize debris based on set criteria followed by removal (flow chart).
5. In known debris areas, pave backyards and remove debris in common areas.
6. In known debris areas, remove debris in backyards to 4 feet bgs; remove debris in common areas to 2 feet bgs.
7. Burry a permeable physical barrier (steel/composite fence) at 0.5 to 1 foot bgs in all backyards and common areas.

Note: Bold indicates those discussed on November 15th with the SWDIV, TtEMI, and IT Corp.

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Naval Facilities Engineering Command
Southwest Division
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San Diego, CA 92132-5190

DATE: 04/30/01
CTO: 0323
LOCATION: NAVSTA Treasure Island, San Francisco

FROM: [signature]
Daniel Chow, Program Manager

DOCUMENT TITLE AND DATE:

Draft Site 12 Engineering Evaluation and Cost Assessment Meeting Minutes, December 19, 2000

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